

**STUDENT
WORKBOOK**

For use with Chapter 5
Text Pages 114-153

CHAPTER 5 STUDY GUIDE

DIRECTIONS: As you read the chapter, complete the following items. Later, you can use this guide to study the chapter information.

Prenatal Development

1. Prenatal development is _____

Conception

2. Define:

Ovum _____

Uterus _____

Sperm _____

Conception _____

Zygote _____

Period of the Zygote

3. The first stage in the development of a baby is the _____ and lasts _____ weeks. The zygote attaches to the _____ and is the size of a _____ at the end of two weeks.

Period of the Embryo

4. The second stage of the pregnancy is the _____ and lasts from the _____ week to the _____ week of pregnancy.
- During this time, the _____, which attaches the sacs around the embryo to the uterus, and the _____, the tube that connects the placenta to the embryo, develop. The tube carries _____ and _____ from the mother's blood stream to the baby and takes _____ from the baby. The _____ surrounds the

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embryo and acts as a cushion to protect it. At three weeks after conception, the

_____ is the largest organ, and it has already started

_____.

Period of the Fetus

5. The last stage of pregnancy is the _____ and begins about the _____ week and lasts until _____. In the early part of this period, the baby has the beginnings of all _____ and _____. By the fourth or fifth month of development, the kicking and moving of the baby can be felt by the mother, which is called _____. By the _____ month, with a great deal of medical help, the fetus is capable of living outside the uterus. During the final month, the fetus _____ weight rapidly and adds _____ to help maintain body heat after birth. In the last few weeks, the fetus stores _____ and builds _____ to disease and infection. During the ninth month of pregnancy, the fetus drops into the birth canal, which is called _____, to prepare for labor. After about _____ weeks of preparation, the baby is ready to be born.

The Genetic Package

6. What is heredity? Name three characteristics that can be hereditary.

7. Explain the relationship between chromosomes and genes.

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8. Explain the difference between dominant and recessive genes.

Sex Determination

9. How is the sex of a baby determined?

Multiple Births

10. Explain how each of the following occurs:

Identical twins _____

Fraternal twins _____

Infertility

11. What is the relationship between infertility and a fertility analysis?

12. Explain possible treatment for women who do not ovulate. Discuss any complications or concerns.

13. Explain possible treatment for men who do not produce enough healthy sperm.

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14. What are the five options for infertile couples? Briefly describe each.

Options	Descriptions

Birth Defects

15. When are babies classified as premature? What risks are associated with prematurity?

16. What is a birth defect?

Types of Birth Defects

17. Give an example of a physical birth defect.

18. Give an example of a functional birth defect.

19. Differentiate between miscarriage and stillbirth.

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Causes of Birth Defects

20. What is the difference between hereditary and environmental defects?

21. Fill in the following chart with information from your reading.

	Cause	Effect	Prevention or Treatment
Cystic fibrosis			
Down syndrome			
PKU			
Sickle-cell anemia			
Tay-Sachs disease			

22. How can a genetic counselor help prospective parents?

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23. What are the most common prenatal tests for diagnosing birth defects? Briefly explain each.

Prenatal Test	Explanation

Avoiding Environmental Hazards

24. Differentiate between fetal alcohol syndrome and fetal alcohol effects.

25. Fill in as much of the chart below as possible from your reading.

Environmental Hazard	Effect	Treatment or Cure	Prevention
Alcohol			
Caffeine			
Tobacco (nicotine)			
Abused drugs (cocaine, marijuana, and the like)			
X rays			
Rubella			

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Environmental Hazard	Effect	Treatment or Cure	Prevention
Sexually transmitted diseases (STDs) 1. Syphilis, gonorrhea, and herpes			
2. HIV/AIDS			

26. How do drugs affect prenatal development during the following stages?

First three months of pregnancy _____

Last six months _____

27. Why should a woman who is likely to become pregnant avoid taking any drugs?
